



Climate change and the transmission of vector-borne diseases: A review

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Year: 2008
Journal: Asia-Pacific Journal of Public Health / Asia-Pacific Academic Consortium for Public Health. 20 (1): 64-76

Abstract:

This article reviews studies examining the relationship between climate variability and the transmission of vector- and rodent-borne diseases, including malaria, dengue fever, Ross River virus infection, and hemorrhagic fever with renal syndrome. The review has evaluated their study designs, statistical analysis methods, usage of meteorological variables, and results of those studies. The authors found that the limitations of analytical methods exist in most of the articles. Besides climatic variables, few of them have included other factors that can affect the transmission of vector-borne disease (eg, socioeconomic status). In addition, the quantitative relationship between climate and vector-borne diseases is inconsistent. Further research should be conducted among different populations with various climatic/ecological regions by using appropriate statistical models.

Source: <http://dx.doi.org/10.1177/1010539507308385>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Precipitation, Temperature, Unspecified Exposure

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Climate Change and Human Health Literature Portal

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue, Malaria, Ross River Virus

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content